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ABSTRACT

In this speech, the authors contend that the adoption of a marketing approach by the disseminators of educational research and development product might well lead to a more effective way of getting products into use by educators. The marketing concept as defined comprises the planning of a coordinated set of products and programs to serve the needs of existing and potential customers. The authors explain how this marketing approach to dissemination might be adapted and applied by a product development agency, touch briefly on some of the elements of such an approach already in process, and point up some of the problems that will have to be solved if such an approach is to be implemented. Each one of six characteristics of the marketing approach is examined, and the relationship of each characteristic to the development of a better dissemination strategy by R&D agencies is explored. (Author/DN)

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A Projected Role for Marketing in the Dissemination of Products Developed by R&D Agencies *

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Justification for a large expenditure of resources in the development of R&D educational products must rest upon evidence of improved educational practices resulting from use of these products by educational practitioners. No matter how "good" a product is in terms of demonstrated ability to provide its targeted audience with better learning opportunities, its real value can be measured only in terms of the number of students it ultimately reaches and the resulting effect it has upon these students.

The product dissemination pattern currently in use by most product developing agencies seems to ignore this truism. Their pattern appears to follow a sequence that looks something like: (1) get inspiration for a product idea as staff members cogitate over the problems of education brought to light by research reports, seminars, professional exchange of information, bull sessions, etc.; (2) try out the idea within a circle of established contacts to get a reading on whether it might fly; (3) explore current funding sources to identify a possible fit between the idea and tapable developmental monies; (4) tap the money sources; (5) develop a product model; (6) test and revise with the help of available potential users; (7) look for someone to produce and distribute the resulting prototype; (8) implement some low key dissemination efforts; (9) find a producer/distributor and depend on him to get the product to the potential user; and, (10) move on to another product idea.

Admittedly, this picture represents an over-simplification of the process. We all could site notable exceptions to this pattern which involve more sophisticated strategies. For instance, the R&D product testing cycle has proved to be very effective in producing a product which reaches its projected objectives under controlled conditions and, in a

few cases, input from this testing process has resulted in revisions of the prototype which have improved its marketability. However, most dissemination strategies currently employed by educational R&D agencies pick up the product toward the end of the testing cycle. This is too late in the developmental process to influence the final product form as it relates to marketing needs. As a result, the product disseminator finds himself, at best, in the role of pushing an innovative product upon a potential user who has to be convinced that said product is valuable, necessary, and/or will help solve a problem the user faces after the product is ready for distribution.

There must be a more effective way to get products into use by educators. We propose that adoption of a marketing approach by the disseminators of R&D products might well lead to a more effective way.

The marketing concept, as borrowed from industry, has replaced and reversed the logic of the old sales concept. The two concepts should not be confused. With the sales concept, the firm starts with existing products and considers its task as one of using, selling and promotion to stimulate a profitable volume of sales. The marketing concept, on the other hand, starts with the existing and potential customers and their needs and plans a coordinated set of products and programs to serve these needs. Thus, we perceive the dissemination effort as becoming the marketing interface system between R&D and the users of R&D products. As such, it will conduct marketing research designed to measure, evaluate and interpret the desires, attitudes and behavior of marketing segments and relay the findings to developers of R&D programs. In addition, it will launch differentiated marketing programs for various market segments and measure their effect in terms of adoption and

institutionalization of R&D innovations.

The definition of marketing in the Kotler, Zaltman, et al, report lends itself to this type of an approach.

> ". . . [Marketing is] the study of how exchanges or transactions are created, stimulated, facilitated and valued . . . [and] is interested in describing, explaining, and predicting characteristics of [these exchanges and] transactions . . ."[1]

Their concept of marketing goes on to list several things of value that marketing as a discipline can offer:

> "1. Marketing emphasizes understanding the behavioral system of the client and contains sophisticated methods for client system analysis.
>
> 2. Marketing emphasizes designing products in a way which will maximally satisfy the choice criteria of the adopters. Marketing contains many procedures for testing a product concept to bring it to a state of maximal readiness for dissemination.
>
> 3. Marketing emphasizes the development and selection of efficient channels for making the product available to those who are in a primary position to use and benefit from it.
>
> 4. Marketing emphasizes the test marketing of the product to bring it to a better form before intense dissemination; and also to observing it through the life cycle to reposition it or modify its features.
>
> 5. Marketing emphasizes the right selection of message, media, and timing to optimize communication effectiveness.
>
> 6. Marketing emphasizes effective organizational arrangements in the form of motivated change agents and responsibility centers (product and marketing managers) for optimal planning implementation, and control of programs. . ."[2]

The report goes on to examine a series of alternative strategies which NIE might develop to cope with the dissemination problem as it relates to R&D programs and products. Most certainly there has been no closure on which one of these alternatives, or combinations there of, if any, will be selected for

1. The Role of Marketing In A National Institute of Education. Preliminary Report of a Planning Conference, April 2-3, 1972. Kotler, Zaltman, Co-Chairman. p.1

2. Ibid . . . p. 2

primary emphasis. We assume that such information will be forthcoming.

It is the purpose of this paper to examine how a marketing approach to dissemination might be applied by a product development agency; to briefly touch upon some of the elements of such an approach that are already in process; and to point up some of the problems which will have to be solved if such an approach is to be implemented.

Perhaps this can best be done by examining each one of the six characteristics of the marketing approach which have been identified and see how they relate to the development of a better dissemination strategy on the part of R&D agencies. Keep in mind our beginning rationale that innovative R&D programs will have an effect on improved educational practices only to the degree that they are used. Therefore the primary focus of a dissemination strategy must be upon that potential product user.

Characteristic 1. Marketing emphasizes understanding the behavioral system of the client and contains sophisticated methods for client system analysis.

The major weakness of the R&D agency in this area occurs mainly in the lack of an effective method for cleint system analysis. Given the limited emphasis that has been placed upon this factor, it is remarkable how far we actually are along the route of understanding the client and what makes him act and react. This partial understanding has been achieved in several ways.

Available studies which focus on the behavioral characteristics of educational practitioners have been reviewed and synthesized. Direct involvement with potential clients as a result of the field testing process has provided the opportunity of becoming better acquainted with these clients and of gathering some data as to their behavioral systems. A certain amount of residual information has been available from the experiential base of R&D agency staff members who have been recruited from the client system. The knowledge gained from these sources has been sifted and tempered through

exposure to selected friends who still operate as educational practitioners (consultants, panels, adivsory committees, etc.) so that some practical information about the client behavioral system has emerged.

However, knowledge of the client system and its behavioral patterns and characteristics should not be left to such sporatic efforts. R&D agencies have demonstrated that they can effectively conceptualize a product, develop a prototype, and put it through a rigorous research and development cycle which produces empirical data attesting its effectiveness. These same agencies should be able to conceptualize and test another kind of product -- a system for analyzing client behavior patterns. By studying the variables which are found in the various behavioral patterns exhibited by educators as they go through the decision/adoption process regarding R&D products, those characteristics which appear to be the most critical in the process can be isolated and become the basis for the development of alternative dissemination/installation strategies. It simply boils down to the practicality of knowing as much about the client as is known about the product so that they can be matched up in the most optimum way.

In order to effectively apply a marketing approach to the dissemination/installation of R&D products we must develop more sophisticated methods for analysis of the client behavioral system and develop implementation strategies which are based upon the knowledge gained through the application of these methods.

Characteristic 2. Marketing emphasizes designing products in a way which will maximally satisfy the choice criteria of the adopters. Marketing contains many procedures for testing a product concept to bring it to a state of maximal readiness for dissemination.

The concept of designing a product prototype which meets identified user criteria represents a shift in the current R&D product development pattern. This does not mean that client needs have been ignored in the past. Consideration has been given to such items as the available resources of the

client in terms of hardware, financial capacity, experience in innovation, etc. The production capabilities of potential producers and distributors have been considered in determining the final product format. The designs of successful commercial and R&D products have been studied and analysed. One of the primary purposes of the field test cycle is to gain input as to the compatability of the product prototype to the needs of the potential user and and revision of the prototype to more nearly meet these needs.

The problem centers around the fact that these efforts are occuring too late in the developmental process to take full advantage of the results that such an application of the marketing discipline should produce. The few marketing studies that have been conducted by R&D agencies indicate that some of the weaknesses (market wise) that were built into finished R&D products could have been avoided if better application of information about client needs had been made during the product conceptualization stages instead of waiting until revisions were made at the end of the testing cycle stages. Furthermore, the perceptions that a potential product user has of the attributes of innovations has been shown to be related to adoption behavior. Certain attributes of the innovation (product) seem to facilitate adoption while others have barrier effects. There are even indications that these product attributes have different effects on users at different stages in the adoption decision process. Much would be gained through the identification and isolation of those product attributes that seem to facilitate trial, adoption and institutionalization and using the knowledge gained in designing products which maximally satisfy the choice criteria of the adopters.

As is pointed out in the marketing characteristic statement above, the marketing approach should contain many procedures for testing a product concept to bring it to a state of maximal readiness for dissemination. These

procedures should begin at the product conceptualization stages.

In order to effectively apply a marketing approach to the dissemination/ installation of R&D products we must more effectively identify with the choice criteria of the potential user and develop products which are designed to meet those criteria.

Characteristic 3. Marketing emphasizes the development and selection of efficient channels for making the product available to those who are in a primary position to use the benefit from it.

Assuming that the R&D agency, through application of the marketing approach, has been able to develop an understanding of the behavioral system of the client; identify his perceived needs, and incorporate this knowledge into the development of a product, his next step would be that of placing the product into the distribution channel which is most likely to get the product to the user.

The current efforts in this area fall into a two-step pattern which grew out of the former NCEC guidelines. The first step involves the finding of a commercial or non-profit distributor who will "take on" the product at the end of the developmental cycle and distribute it as part of his product line. This distribution route would supposedly take advantage of established channels which are backed up by staff and organizations which already nas expertise in the marketing area. For those products emerging which do not possess those characteristics which make them "sellable" through the private sector, alternative distribution channels such as printing by G.P.O., duplicating and distributing in-house, placing in the ERIC system, etc., have been implemented.

The problems associated with these distribution patterns have been almost insurmountable. Commercial distribution houses are not prepared to produce and sell products which are different in format from their established line.

Their salesmen are not trained to handle these products, and in many cases such products do not lend themselves to the standard commission pattern. The commercial distributor is not prepared to provide in-depth installation training if and when it is required. The Laboratories and Centers do not have the resources (staff and money) to mount nationwide sales and installation training efforts. Our current distribution channels are proving to be neither efficient nor effective.

This failure to get the product to the user in reasonably large quantities has a serious effect on the primary purpose of the R&D effort. R&D agencies are committed to working for change which leads to improved educational opportunities by producing products whose use will work at the cutting edge of the change process. In order to realize this goal, R&D agencies must find more effective means of getting products into use. Their efforts should concentrate in three main areas.

The first of these centers around developing a better match between the product and the potential commercial distributor. Here again, current practices start this matching process too late in the product development cycle. Potential distributors and their characteristics should be identified prior to the development of a product prototype. The experiential knowledge base of these potential distributors should be tapped and used during the product conceptualization stages. The product and the distributor should be matched up early enough for the distributor to have input into the format the product will take. Training and installation requirements should be identified early enough to write them into the distribution agreement.

The second area centers around the development of more sophisticated in-house distribution capacity to handle products which are not adaptable to the commercial channels. Internal production capability could be more effectively utilized. The idea of setting up a type of revolving fund mechanism which

would support in-house stocking and mailings should be explored. The potential that existing educational service centers, resource centers, SEA's, and other linker agencies has as producer/distributors in co-operation with R&D agencies should be developed.

The third area represents an effort to identify and activate new and/or different distribution channels. Perhaps the establishment of a new product producer/distributor agency which is specifically designed to handle R&D products would be an alternative, or the creation of a national dissemination network which would link all the R&D agencies together with the existing linkers which are already in direct contact with local schools could establish a direct product flow line from the developer to the user.

At any rate, in order to effectively apply a marketing approach to the dissemination/installation of R&D products we must select and/or develop more efficient channels for making the products available to the potential user and find ways to more effectively utilize these channels.

Characteristic 4. Marketing emphasizes the test marketing of the product to bring it to better form before intense dissemination; and also to observe it through the life cycle to reposition it or modify its features.

For a group who knows as much about field testing as the R&D sector does they have demonstrated an incredible amount of naive thinking in the area of test marketing of products. The reason for this lies partially in their assumption that the creation of a better mousetrap will automatically result in a ready market. Such has not been the case. The potential user may have already eleminated his problem with mice. The trap produced may be too difficult for the average user to set. It may trap children's fingers and toes as effectively as it traps mice. It may make a startling noise when it is tripped in the middle of the night. A limited and controlled marketing effort prior to saturation dissemination would help identify such problems and allow for correction prior to total commitment. It could also provide

the developers with the feedback needed to vary the product format in order to make to more acceptable and usable by various segments of the potential market and meet criteria and/or needs peculiar to that particular segment.

In our discussion under characteristic 2 which dealt with a product design which satisfied the choice criteria of the potential adopters, we pointed out that there are indications that particular product attributes have different effects upon the user at different stages in the adoption decision process. This concept is germaine to the necessity for providing some product monitoring during its life cycle which might lead to repositioning or modifying of the product. Product attributes which prove highly successful at stimulating adoption during the time that the product is perceived as new and innovative, may have a decidedly negative effect on adoption during the later life span of the product when it has taken on the aura of a respectable on-going educational practice. This new role may call for modified format and market procedures which would be lost if there is no on-going product monitoring.

The transition from product field testing procedures to test marketing procedures should be relatively simple. The fact that we have seen only limited use of the test market procedure applied by R&D agencies hinges mainly on their failure to perceive its importance as part of the dissemination/installation process.

In order to effectively apply a marketing approach to the dissemination/installation of R&D products we must design and implement test marketing procedures and establish a product monitoring process. The data gained through this effort must then be used to produce a product format which is worthy of a saturation installation effort.

Characteristic 5. Marketing emphasizes the right selection of message, media and timing to optimize communication effectiveness.

The R&D Agencies have done some good things in the area of communicating

information about their products to the potential user. Many of the dissemination pieces they have developed are compact, informative and eye catching. Some of the AV materials produced, when used in conjunction with the written pieces, are adaptable to presentations and/or demonstrations about products to groups of potential users. They have been involved in selecting and activating a variety of test demonstration sites for products throughout the nation. Information about R&D products has appeared in the media, both AV and publications. There have even been several notable instances of establishing cooperative efforts with linker groups to disseminate and install products.

The kicker in this picture hinges on the word "things", since that is what we are talking about. The R&D groups have failed to conceptualize, design, and implement a strategy which puts the "good things" together as to message, media and timing in relationship to a marketing plan for a specific product.

What we have, in the R&D picture, is a somewhat disorderly accumulation of wisdom about what seems to work. This can be illustrated by listing some of the methods which have been used during the past few years by those who wish to bring about change.

The political or power method legislates change through the passing of laws or creating regulations by federal, state and local governments. Laws have been passed requiring or forbidding such things as sex education; guidelines have been set up in school districts for vocational or career education; state departments of education have established new procedures for certifying teachers, etc.

The economic incentive method is illustrated by the many attempts, particularly by the federal government, to create change in schools by providing extra dollars (as in the Title I and Title III programs of the

Elementary and Secondary Education Act). On a smaller scale, by subsidizing research and development activities, the Federal Government has also provided incentives for using new programs by making them less expensive than if they had been developed with private capital.

Through implementing an evaluative method many agencies, both public and private, have tried to influence and change education by sponsoring the gathering of certain kinds of data that would point up shortcomings and deficiencies in current practice. The movement toward accountability is a step in this direction.

A great deal of emphasis has been placed on devising training methods to give teachers and administrators new skills that are thought to be necessary if change is to occur.

The dissemination/information method has stimulated a number of national, regional, state and local information programs in the belief that change will not occur unless people know about the options that exist and have an opportunity to see them in practice, or at least get enough information to evaluate them.

And, of course, the product development method which results in the development of a new program or product designed to bring about a change in educational practice.

There is nothing wrong with any of these methods or "things" in and of themselves. What is wrong is that the R&D agencies have not demonstrated the ability to select or cluster them in order to produce the greatest possible impact on a certain group of potential users, on behalf of a certain product, with the resources available and within the most optimum time framework.

In order to effectively apply a marketing approach to the dissemination/installation of R&D products we must be able to select and/or cluster these methods and "things" in order to produce such an impact.

Characteristic 6. Marketing emphasizes effective organizational arrangements in the forms of motivated change agents and responsibility centers (product and marketing managers) for optimal planning implementation, and control of programs.

An effective marketing strategy for R&D products calls for a coordinated effort between a wide variety of loosely related organizations. The targeted audience is scattered all across the nation. The product developers works out of one location subjected to a different set of values and controls than the product distributor. There is usually a rather complicated set of intermediate agencies who exert varied degrees of influence on the potential user. The communication media groups which have the capacity to reach the segments of potential users are wide spread and varied in motivation and capacity. Each product with which we are dealing has individual characteristics and peculiarities, as do each segment of the potential users. In order to take advantage of a marketing effort, an organizational arrangement must be designed and implemented which is capable of coordinating and controlling the combined efforts of these widely diversified groups. The creation of NIE and its activation provides the framework for such an organization and its staff is already studying alternative strategies which will guide its operations. However, the vitality of its operation is going to depend to a great extent on the quality of the input it receives from its various component groups. For the purpose of emphasis, we have focused on some of the areas in which the R&D Laboratories and Centers need to improve if they are to become more effective marketers. But in the process of looking at our needs, we must not forget that we also have strengths. We represent an organizational base located in relatively strategic places throughout the nation. We have developed direct lines of communication with many of the linkers and educators who represent the change agents who are at work in the field. Our dissemination staffs are as well trained and as knowledgable in the area of application of dissemination procedures as any in the field of education. We have already accumulated, and

are in the process of gathering more, a considerable body of information about dissemination/installation strategies. And finally, we are in the unique position of having established viable working relationships with all of the various and diverse groups that must be brought together if an effective marketing approach is to be successfully implemented on a nationwide scale.

In order to effectively apply a marketing approach to the dissemination/installation of R&D products organizational arrangements in the form of motivated change agents and responsibility centers must be developed. R&D Laboratories and Centers are in a unique position to play a vital role in the planning and implementation of such an organizational structure.

Summary

Much of the criticism leveled at R&D deals with its "meager" impact on practice in the schools. This is to be expected, since there has been only token support for efforts to develop and test plans and procedures for the widespread implementation of programs and practices resulting from the R&D effort. Good ideas rarely sell themselves. In order to realize practice improvement, it is imperative that we launch a concerted effort to develop, test and validate strategies that can be applied with target segments of potential users under specified conditions in order to maximize trial, adoption and institutionalization of educational innovations.

The application of a marketing approach will help us in the conceptualization and implementation of such strategies as they relate to a dissemination/installation effort. It will help us maintain a focus on the clients behavioral system as it relates to product adoption; producing products which satisfy the choice criteria of the potential user; developing and selecting efficient channels for product distribution; utilizing such techniques as test marketing

and monitoring in order to bring products to a better form for intense dissemination; developing optimum communication effectiveness through the right selection of message, media, and timing; and working toward the creation of effective organizational arrangement for optimal planning implementation, and control of programs.

As R&D agencies we do not have the capacity to quickly develop a highly sophisticated marketing model leading to improved dissemination/ installation programs. Our knowledge of fundamental processes of change, our tools to measurement and ability to segment audiences are too limited for short range success. But we do have the capacity to test and develop some preliminary procedures which should aid in immediate planning and at the same time identify those areas where significant research and development must be done in order to make our future planning more effective. We can conduct such research and development and utilize the results in the development of large scale planning procedures for change effort which could be generated at the state or federal level.

The application of a marketing approach will aid us in getting about our business of improving the way in which children are educated through the development and installation of R&D programs and products.